

Manuscript ID:

TIJCMBLIR-2026-030248

Volume: 3

Issue: 2

Month: April

Year: 2026

E-ISSN: 3065-9191

Submitted: 18 Mar 2026

Revised: 22 Mar 2026

Accepted: 20 April 2026

Published: 30 April 2026

Address for correspondence:

Srushti Sonawane
Student, Pursuing MCom
(Advanced Accountancy) SIES
(Nerul) College of Arts, Science
and Commerce (Autonomous)
Email:
srushtisonawane569@gmail.com

DOI: [10.5281/zenodo.19626301](https://doi.org/10.5281/zenodo.19626301)

DOI Link:

<https://doi.org/10.5281/zenodo.19626301>

Creative Commons (CC BY-NC-SA 4.0):

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License, which allows others to remix, tweak, and build upon the work noncommercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

A Study on The Impact of Digitalization on Bookkeeping and Accounting Systems

Srushti Sonawane¹ Dr. Snehal Patil Birje²¹Student, Pursuing MCom (Advanced Accountancy) SIES (Nerul) College of Arts, Science and Commerce (Autonomous)²Research Guide

Abstract

The present study investigates how progressive digitalization has transformed bookkeeping and accounting practice in the Indian regulatory and business environment. Traditional paper-based ledgers have given way to cloud-based platforms, ERP systems, OCR-driven document capture, and real-time government compliance portals. Regulatory milestones — GST e-invoicing and the MCA audit-trail mandate — have accelerated this shift, making periodic manual updates obsolete. Primary data collected from 150 respondents across students, accounting professionals, and business owners reveal that digital tools are broadly perceived as beneficial, but training deficits, cybersecurity risks, and software costs remain significant barriers. Hypothesis testing confirms a statistically significant association between familiarity with digital tools and the belief that manual bookkeeping will eventually be fully replaced.

Keywords: Digitalization, Bookkeeping, Accounting Software, ERP, GST E-Invoicing, Audit Trail, Cloud Accounting, Internal Control

Introduction

Background of the Study

Accounting has long been called the language of business. For most of the twentieth century that language was spoken through handwritten ledgers and manual registers. The late 1980s brought desktop software such as Tally and Busy, shifting arithmetic to computers. A second transformation arrived with ERP systems that integrated finance with procurement, inventory, and sales. The current phase goes further: it digitalises the entire lifecycle of financial information — from source events to real-time dashboards — using OCR, APIs, e-invoicing, and cloud storage.

Key Indian regulatory developments sharpening this trend:

- GST (2017) and mandatory e-invoicing, now covering entities with annual turnover above INR 5 crore.
- MCA audit-trail requirement (effective FY 2023-24) mandating tamper-evident edit logs in accounting software.
- UPI processing 16–20 billion transactions per month in 2024-25, making virtually all payments digital.

Conceptual Distinctions

Digitisation converts physical records to digital form (e.g., scanning an invoice to PDF). Digitalisation redesigns entire processes so an invoice is validated, posted, and reconciled automatically in real time. Digital transformation is the broader cultural and business-model change that both enable.

Drivers of Digitalization

- Regulatory and compliance pressure: mandatory audit trails, GST e-invoicing, digital filing requirements from ICAI and SEBI.
- Economic incentives: lower processing costs, faster month-end closing, and better access to credit.
- Organisational and social factors: post-pandemic remote work, a digitally native workforce, and updated accounting curricula.

Opportunities and Risks

Digital accounting offers near-real-time information, automated reconciliations, audit-trail transparency, scalability, and deep analytical insight. Equally, it introduces cybersecurity threats, vendor-downtime dependency, master-data quality issues, staff skill gaps, and data-privacy obligations. A balanced appreciation of both dimensions shaped the research design.

How to Cite this Article:

Sonawane, S., & Patil Birje, S. (2026). A Study on The Impact of Digitalization on Bookkeeping and Accounting Systems. *The International Journal of Commerce Management and Business Law in International Research*, 3(2), 258–265. <https://doi.org/10.5281/zenodo.19626301>

Opportunities and Risks

Digital accounting offers near-real-time information, automated reconciliations, audit-trail transparency, scalability, and deep analytical insight. Equally, it introduces cybersecurity threats, vendor-downtime dependency, master-data quality issues, staff skill gaps, and data-privacy obligations. A balanced appreciation of both dimensions shaped the research design.

Research Methodology

Objectives

The broad aim was to assess the impact of digitalization on bookkeeping and accounting systems with reference to user familiarity, perceived advantages, challenges, internal control, and the future of manual books. Specific objectives:

- Measure the extent of digital-tool adoption across respondent categories.
- Evaluate perceived benefits in terms of accuracy, speed, compliance, and decision support.

Sample Profile

Category	Count	Share (%)
Students	60	40.0
Accounting / Finance Professionals	55	36.7
Business Owners / Entrepreneurs	35	23.3
Total	150	100.0

Table 2.1 — Sample Composition | Source: Primary Data

Gender split: 68% male, 31% female, 1% prefer not to say. Dominant age cohort: 21–30 years. Experience ranged from under one year to more than six years.

Review of Literature

Selected Indian contributions:

- Bharadwaj (2019) documented how GST compliance requirements standardised charts of accounts and pushed MSMEs towards formal accounting software.
- Choudhary (2020) evaluated e-invoicing readiness among small firms, highlighting the critical roles of ASPs and GSPs.
- Garg and Gupta (2021) identified unreliable internet connectivity and data-localisation concerns as key cloud-adoption barriers in Indian firms.
- ICAI publications have consistently emphasised audit trails, maker-checker controls, and documented IT General Controls.

- Identify key challenges including cybersecurity, cost, and training gaps.
- Test whether familiarity with digital tools predicts the belief that manual books will become redundant.

Hypotheses

- H1: Familiarity with digital tools is associated with perceived ease and efficiency.
- H2: Experience band is associated with frequency of digital tool use.
- H3: Familiarity with digital tools is associated with the belief that digitalization will fully replace manual bookkeeping.

Research Design

A descriptive and analytical cross-sectional design was adopted. Primary data were gathered through a structured Google Forms questionnaire (March–May 2025). A pilot of 15 respondents confirmed acceptable reliability — Cronbach's alpha of 0.81 for the benefits scale and 0.78 for the risks scale.

Selected international contributions:

- Alles (2015) and Vasarhelyi (2014) articulated continuous auditing as a natural complement to digital bookkeeping.
- Appelbaum et al. (2017) surveyed analytics use cases in external audit, including journal-entry testing and automated fraud detection.
- IFAC (2021) documented digital transformation in small practices through workflow tools and client portals.
- XBRL literature demonstrates benefits of structured reporting for cross-entity comparability and machine readability.

Data Analysis and Interpretation

Age Group of Respondents

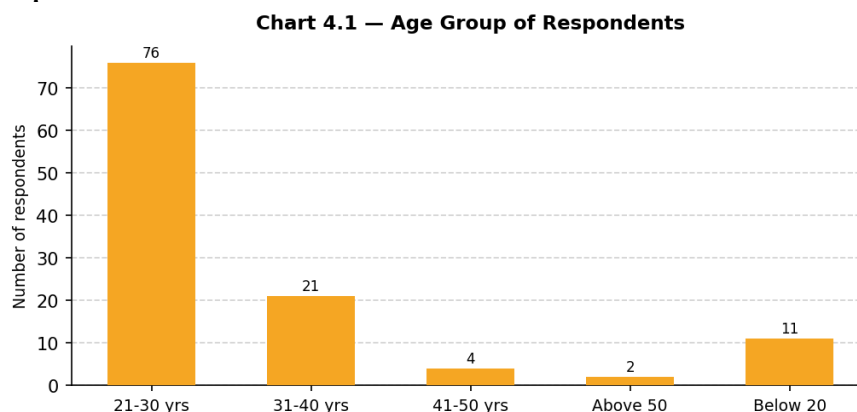


Chart 4.1 — Age Group of Respondents | Source: Primary Survey (Google Form, Oct–Nov 2025)

The 21–30 years cohort was the largest, followed by 31–40 years. This age skew reflects convenience sampling through colleges and professional networks, and also confirms that digitally exposed respondents dominate the sample.

Gender Distribution

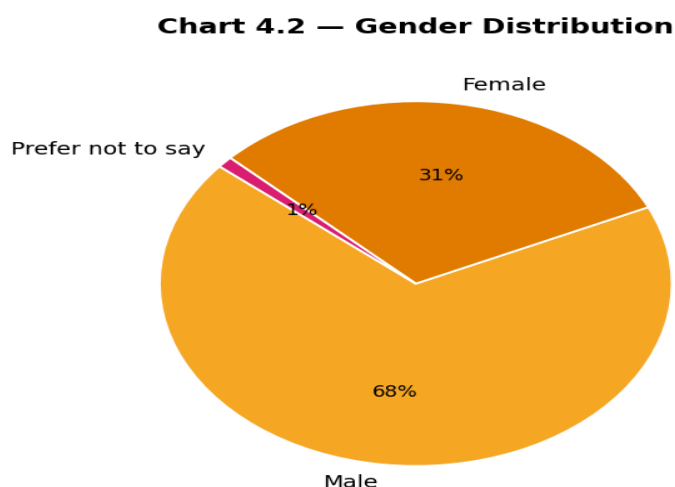


Chart 4.2 — Gender Distribution | Source: Primary Survey

Male respondents accounted for 68%, female for 31%, and 1% preferred not to disclose. The female share is substantial enough to permit demographic comparisons.

Occupation Categories

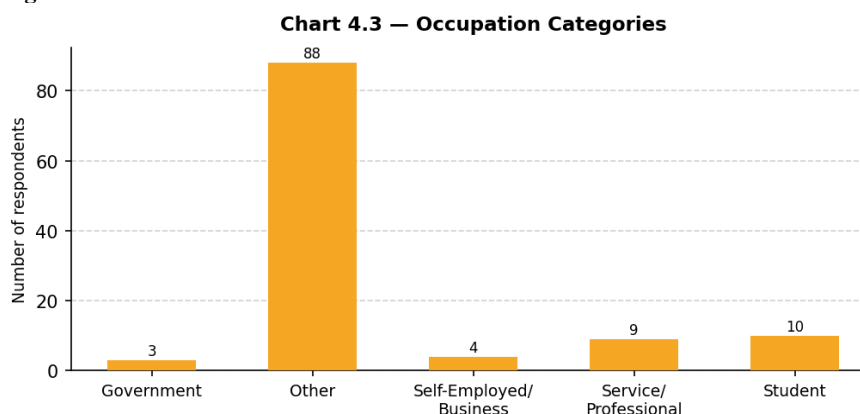


Chart 4.3 — Occupation Categories | Source: Primary Survey

Students and service/professional respondents together constituted the dominant groups. Self-employed and government employees made up smaller shares, reflecting the purposive sampling strategy.

Years of Experience

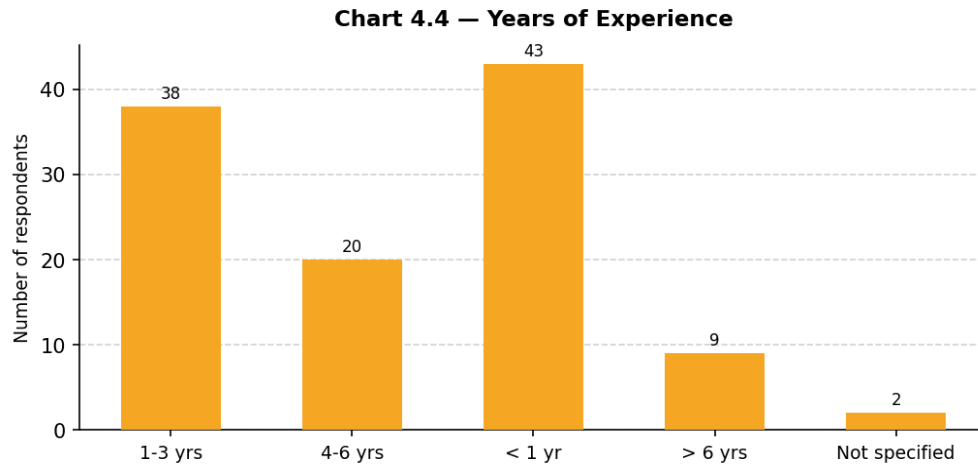


Chart 4.4 — Years of Experience | Source: Primary Survey

The most populous experience band was 'less than one year', followed by '1–3 years' and '4–6 years'. The spread across experience levels enables analysis of whether longer exposure shapes frequency of digital tool use.

Familiarity with Digital Accounting Tools

Chart 4.5 — Familiarity with Digital Accounting Tools

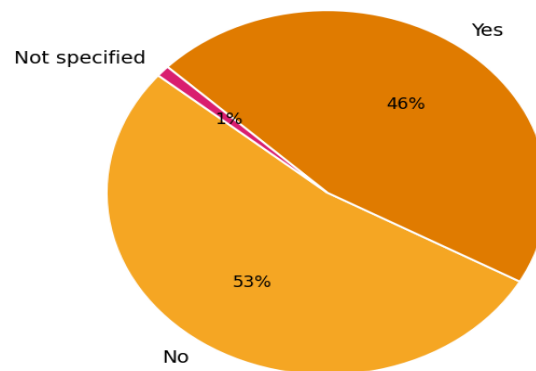


Chart 4.5 — Familiarity with Digital Accounting Tools | Source: Primary Survey

Approximately 46% of respondents confirmed familiarity with digital accounting software while 53% did not. The near-even split suggests that, despite strong regulatory push, a substantial portion still lacks hands-on familiarity with dedicated accounting tools.

Tools Currently Used

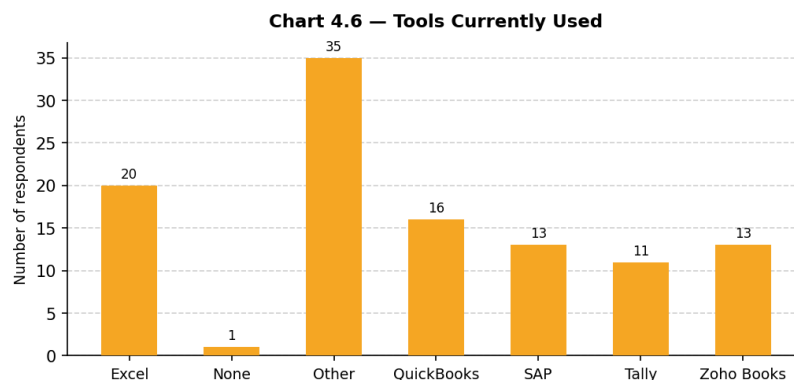


Chart 4.6 — Tools Currently Used | Source: Primary Survey

Microsoft Excel was the most widely cited tool, underlining its continued ubiquity. Dedicated platforms — Tally, Zoho Books, QuickBooks, and SAP — followed. The coexistence of Excel with formal packages confirms the hybrid landscape described in the problem statement.

Frequency of Use of Digital Tools

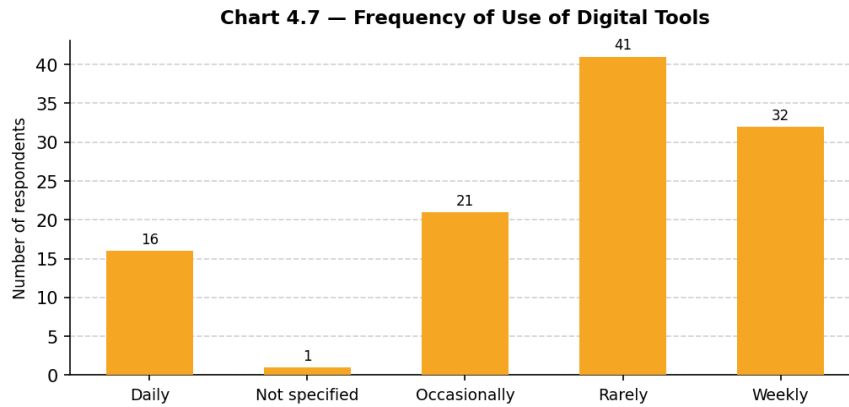


Chart 4.7 — Frequency of Use | Source: Primary Survey

'Rarely' was the single largest frequency category, followed by 'weekly' and 'occasionally'. Only a smaller segment used digital tools daily — consistent with the large student share who engage with accounting software during practicals rather than continuously.

Perceived Impact of Digitalization

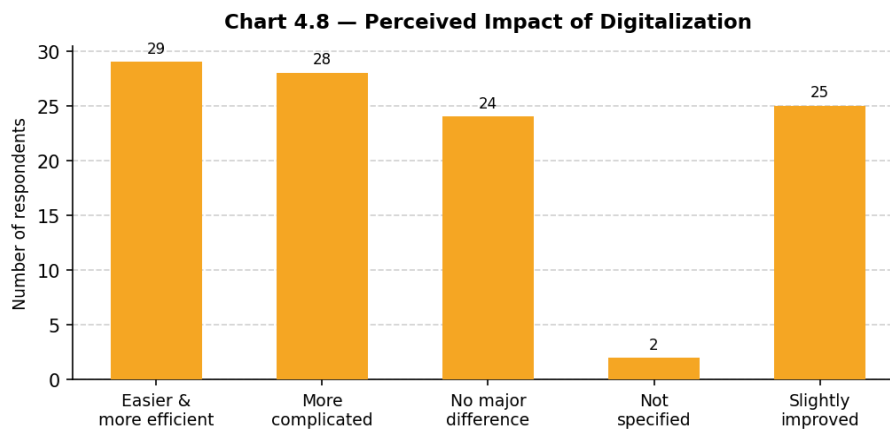


Chart 4.8 — Perceived Impact of Digitalization | Source: Primary Survey

The largest single group described digitalization as making accounting 'easier and more efficient', while a comparable group considered it 'more complicated'. Users with good training perceive clear gains; those without support view digital systems as adding complexity.

Benefits Experienced

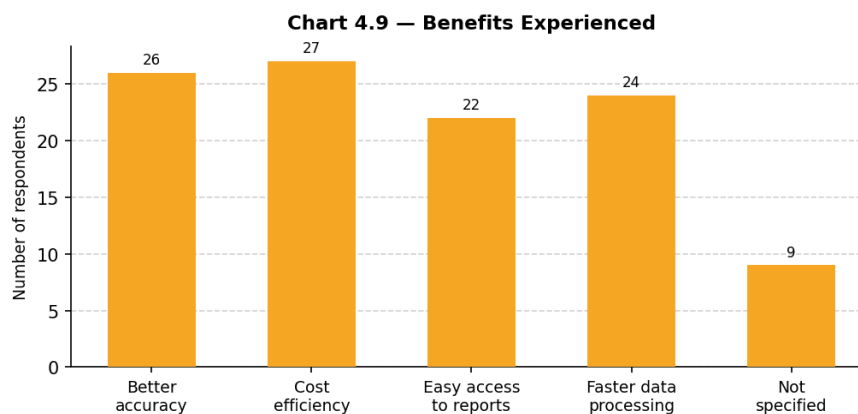


Chart 4.9 — Benefits Experienced | Source: Primary Survey

Cost efficiency was the most frequently selected benefit, important for small and medium firms. Better accuracy, faster data processing, and easy access to reports followed closely — together confirming that digital tools deliver measurable operational advantages.

Challenges Faced

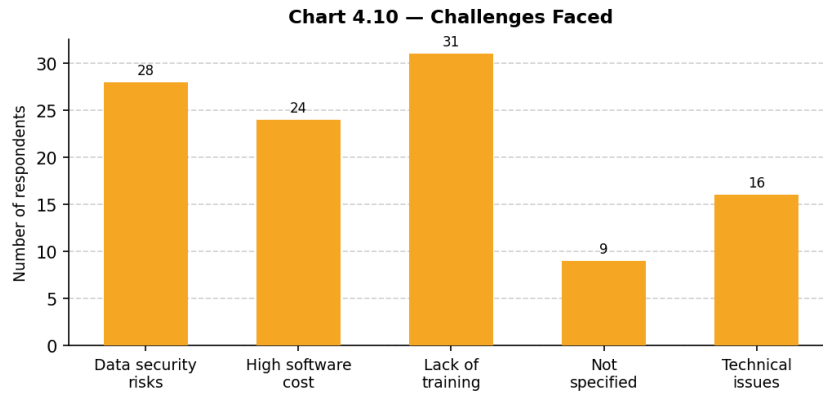


Chart 4.10 — Challenges Faced | Source: Primary Survey

Lack of training was the single most cited obstacle, confirming that human capital remains the critical bottleneck. Data security risks, high software cost, and technical issues were the other dominant pain points, particularly for MSMEs.

Will Digitalization Replace Manual Books?

Chart 4.11 — Will Digitalization Replace Manual Bookkeeping?

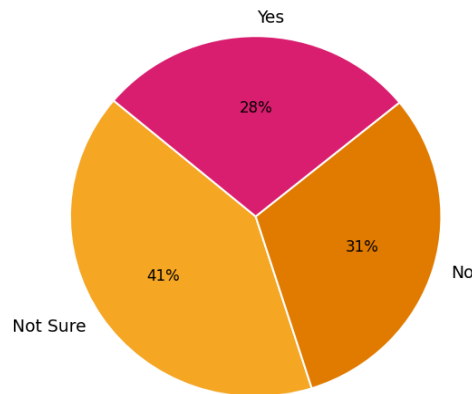


Chart 4.11 — Belief about Replacement | Source: Primary Survey

41% were 'not sure', 31% said 'no', and 28% said 'yes'. The plurality of uncertainty suggests that confidence in complete digital replacement has not yet crossed a tipping point in the general user population.

Familiarity vs Belief about Replacement

Chart 4.12 — Familiarity vs Belief about Replacement

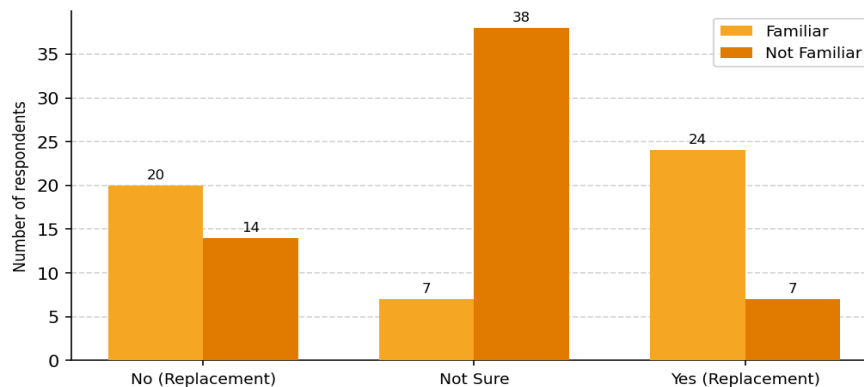


Chart 4.12 — Familiarity vs Belief about Replacement | Source: Primary Survey

Among respondents familiar with digital tools, the 'yes' response to replacement was substantially higher. Among those unfamiliar, 'not sure' dominated. This pattern is the central finding tested by Hypothesis 3 below.

Hypothesis Testing and Findings

H1: Familiarity and Perceived Ease

Familiarity	Easier	Not Easier	N/S
No	11	47	1
Not Specified	0	1	0
Yes	19	31	1

Table 5.1 | Source: Primary Data

Chi-square = 5.29 | df = 4 | p-value = 0.2584

Result: Null hypothesis not rejected at 5% significance. The data do not provide sufficient evidence that familiarity predicts perceived ease. This may reflect the mixed experience of familiar users — some find digital tools genuinely helpful, while others encounter complexity despite familiarity.

H2: Experience Band and Frequency of Use

Experience	Daily	N/S	Occ.	Rarely	Weekly
1–3 years	7	1	8	11	11
4–6 years	5	0	5	5	5
< 1 year	1	0	5	22	15
> 6 years	3	0	1	3	1

Table 5.2 | Source: Primary Data

Chi-square = 20.21 | df = 16 | p-value = 0.2109

Result: Null hypothesis not rejected at 5% significance. Experience band alone does not predict frequency of digital tool use. Role, organisational mandate, and tool availability appear to be stronger determinants than years of experience.

H3: Familiarity and Belief about Replacement (Key Finding)

Familiarity	No	Not Sure	Yes
Not Familiar	14	38	7
Not Specified	0	1	0
Familiar	20	7	24

Table 5.3 | Source: Primary Data

Chi-square = 32.65 | df = 4 | p-value = 0.0000

Result: Null hypothesis REJECTED at 5% significance. There is a statistically significant association between familiarity with digital tools and the belief that digitalization will completely replace manual bookkeeping. Users with hands-on digital experience are far more likely to endorse full replacement, implying that sustained training and exposure will accelerate the transition.

Suggestions

- Invest in structured training: The most-cited barrier was lack of training. Colleges, professional bodies, and employers should develop practical curricula covering cloud accounting, GST portals, and ERP basics.
- Prioritise cybersecurity: Implement multi-factor authentication, role-based access controls, and regular security audits as baseline practices, not optional add-ons.
- Expand affordable entry points: Policymakers and vendors should extend subsidised or

freemium cloud accounting tiers for micro-enterprises unable to afford commercial licences.

- Plan Excel migration paths: The prevalence of Excel alongside formal packages creates dual-system risk. Organisations should migrate spreadsheet-based reconciliations into audit-trail-compliant software.
- Raise regulatory awareness: Many users remain uncertain about the MCA audit-trail mandate and GST e-invoicing rules. ICAI and industry chambers should run targeted awareness programmes for SMEs.

Conclusion

This study set out to examine how digitalization is reshaping bookkeeping and accounting in the Indian context. Evidence from 150 respondents confirms that digital tools are broadly perceived as beneficial — improving speed, accuracy, report accessibility, and cost efficiency. At the same time, training deficits, cybersecurity vulnerabilities,

and the persistent hybrid reality in which digital platforms coexist with manual processes remain genuine challenges.

The most consequential statistical finding is that familiarity with digital tools is significantly associated with the belief that manual bookkeeping will eventually be fully replaced. As the next generation of accounting professionals gains deeper digital exposure, momentum towards complete digitalization will accelerate. The hesitancy observed among less-familiar users is likely to diminish over time, especially as regulatory requirements make digital systems unavoidable.

Looking forward, the convergence of AI-driven bookkeeping, open-banking APIs, and structured digital reporting standards such as XBRL points towards a future in which accounting is continuous, automated, and deeply integrated with the operating fabric of business. Accountants who invest in digital literacy now will be well-positioned to evolve from transaction processors to governance architects in this transformed landscape.

Acknowledgment

I would like to express my sincere gratitude to all those who have supported me in completing this study on *“The Impact of Digitalization on Bookkeeping and Accounting Systems.”*

Firstly, I am deeply thankful to my guide/mentor for their continuous guidance, valuable insights, and encouragement throughout the research process. Their support has been instrumental in shaping this study.

I also extend my gratitude to my teachers and institution for providing the necessary academic resources and a conducive learning environment that made this work possible.

I would like to acknowledge the contributions of authors, researchers, and professionals in the field of accounting and digital technology whose work has greatly enhanced my understanding of this subject.

Finally, I am grateful to my family and friends for their constant support, motivation, and patience during the completion of this project.

Financial support and sponsorship

Nil.

Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

References

1. AICPA (2020). SOC 1 Guide: Reporting on an Examination of Controls at a Service Organization. AICPA.
2. COSO (2013). Internal Control — Integrated Framework. Committee of Sponsoring Organizations of the Treadway Commission.
3. ICAI (2023). Implementation Guide on Audit Trail (Edit Log) Enabled Accounting Software. ICAI.
4. IFAC (2021). Practice Transformation: Digital Transformation of SMPs. International Federation of Accountants.
5. IFRS Foundation (2022). IFRS Taxonomy Illustrated. IFRS Foundation.
6. ISACA (2019). COBIT 2019 Framework: Governance and Management Objectives. ISACA.
7. Ministry of Corporate Affairs, Government of India (2021–2023). Companies (Accounts) Rules — Audit Trail Provisions.
8. Ministry of Finance, Government of India (2020–2025). GST E-Invoicing and E-Way Bill Framework Notifications.